



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,416	12/12/2003	Kohei Sakurai	056207.53080US	9096

23911 7590 01/27/2006  
CROWELL & MORING LLP  
INTELLECTUAL PROPERTY GROUP  
P.O. BOX 14300  
WASHINGTON, DC 20044-4300

EXAMINER

GIBSON, ERIC M

ART UNIT PAPER NUMBER

3661

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/733,416<sup>2</sup>

Applicant(s)

SAKURAI ET AL.

Examiner

Eric M. Gibson

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period-for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/12/03</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1- 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "said computer" in line 7 and "the circuit" in line 11. There is insufficient antecedent basis for these limitations in the claim. There is no prior recitation of a "computer," only a microcomputer. It is unclear if the reference to "said computer" is referring to this element or not. Additionally, the recitation of "the circuit" is unclear because there are three different circuits recited in the claim. It is unclear which of the three circuits "the circuit" is meant to reference.

Claim 2 recites the limitations "the keyless entry" in line 3, "the door lock management" in line 3-4, and "the car owner" in line 4. There is insufficient antecedent basis for these limitations in the claim. There is no prior recitation of these elements in the claim.

Claim 3 recites the limitation "said engine" in line 5. There is insufficient antecedent basis for this limitation in the claim. There is no prior recitation of any engine in the claims.

Art Unit: 3661

Claim 4 recites the limitations "said computer" in line 7 and "the circuit" in line 10. There is insufficient antecedent basis for these limitations in the claim. See above explanation regarding claim 1.

Claim 8 recites the limitations "the period after the last ignition switch connection" in lines 2-3, "the amount of the fuel leakage from the injector" in lines 3-4, and "the engine" in line 5. There is insufficient antecedent basis for these limitations in the claim. No prior period is claimed, nor is any fuel leakage, injector, or engine claimed.

Claim 10 recites the limitation "said computer" in line 7. There is insufficient antecedent basis for this limitation in the claim. See above explanation regarding claim 1.

Claims 5-9 and 11-18 are necessarily rejected as being dependent upon a rejected base claim.

Additionally, due to the numerous antecedent problems in the claims, the Applicant should carefully review the claims for any errors not specifically mentioned above.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3661

Claims 1, 2, 4-7, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold (US005239520A).

Per claim 1, Arnold teaches an electrical control unit for an automobile including a microcomputer which controls equipment installed in the automobile (claim 1, lines 1-2), an input circuit which passes an electric signal from outside to the microcomputer (claim 1, lines 6-10), a driver circuit which outputs the electric signal output from the microcomputer outside (3,4; figure 1), a power supply circuit which supplies power to the microcomputer (7, figure 1), wherein the microcomputer is started by shifting from an inert to an active state to generate voltage (column 1, lines 42-49) by which the microcomputer is operated by a wake-up signal from a circuit other than the ignition switch, even when the ignition switch is cut off (column 3, lines 10-14).

Per claim 2, Arnold teaches that the wake-up signal is transmitted from at least the door lock management (column 2, lines 60-63).

Per claim 4, Arnold teaches an electrical control unit for an automobile including a microcomputer which controls equipment installed in the automobile (claim 1, lines 1-2), an input circuit which passes an electric signal from outside to the microcomputer (claim 1, lines 6-10), a driver circuit which outputs the electric signal output from the microcomputer outside (3,4; figure 1), a power supply circuit which supplies power to the microcomputer (7, figure 1), by which the microcomputer is operated by a wake-up signal from a circuit other than the ignition switch, even when the ignition switch is cut off (column 3, lines 10-14). Arnold further teaches that the wake-up signal is output by a timer module (Abstract lines 14-21; see also column 3, lines 15-51).

Art Unit: 3661

Per claim 5, Arnold teaches that the microcomputer is started by shifting from an inert to an active state to generate voltage (column 1, lines 42-49).

Per claim 6, Arnold teaches the microcomputer controls various equipment (column 2, lines 35-43).

Per claim 7, Arnold teaches making the power supply inert after the processing is executed (column 49-54).

Per claims 14 and 15, Arnold teaches a power supply for the timer (column 3, lines 37-56).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold in view of Salberg (US20010025889A1).

Per claim 3, Arnold teaches the invention as explained in the rejection of claim 2. Arnold teaches that the system can energize any number of different electrical devices in a vehicle (column 2, lines 35-43). However, Arnold does not explicitly teach energizing any of the specific devices including an airflow sensor, an oxygen sensor, a fuel pump, or various heater devices. One of ordinary skill in the art at the time of the invention would know that given the teaching of Arnold, any other electrical device could be energized using the same method disclosed. It is well known in the art that vehicles may be remotely started or heated before the ignition key is actuated. Salberg teaches one such exemplary system of a vehicle heating system that can be energized when the ignition is turned off. It would have been obvious to one of ordinary skill in the art, at the time of invention, to energize a heating device, such as that taught by Salberg, according to the device driver teaching of Arnold, in order to heat the interior of the vehicle without turning the engine on.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold.

Per claim 17, Arnold teaches the invention as explained in the rejection of claims 4 and 14. Arnold teaches using a capacitor as a power supply. A lithium battery is an alternative power supply that would have been obvious to use in place of a capacitor for power that would have been well known to one of ordinary skill in the art at the time of the invention.

***Allowable Subject Matter***

Claims 8 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Per claim 8, the prior art does not teach or reasonably suggest in combination the present invention including that the period after the last ignition switch connection is cut off is calculated by using the value of a counter, the amount of the fuel leakage from the injector for the period is calculated and the amount of fuel injection at the engine starting is corrected by the calculation result.

Per claim 9, the prior art does not teach or reasonably suggest in combination the present invention including that the automobile is controlled by estimating a degree of age deterioration of the various controlled equipment by using the value of the counter in the timer module.

Claims 10-13, 16, and 18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Per independent claim 10, the prior art does not teach or reasonably suggest in combination including an OR circuit activating the first regulator using either the ignition switch signal or one of the plural wake-up signals and a start factor determining means to distinguish which signal activated the first regulator as claimed in the present invention.



Art Unit: 3661

Claims 11-13, 16, and 18 would serve to further define the invention of claim 10 over the prior art.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshida et al. (US00RE38338E) teaches a car electronic control system and method. Irons et al. (US005999876A) teaches a method and system for communication with an engine control module in sleep mode. Langer et al. (US005794055A) teaches an automotive electrical system and method for coupling power to such systems. Kim (US005621250A) teaches a wake-up interface and method for awakening an automotive electronics module. Rydel (US005305459A) teaches a circuit for waking up a microprocessor power supply in particular for an ID card in a car remote control system.

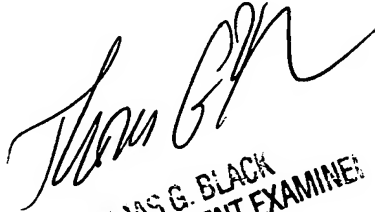
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Gibson whose telephone number is (571) 272-6960. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EMG

  
THOMAS G. BLACK  
SUPERVISORY PATENT EXAMINER  
GROUP 2608